

## Claims

What is claimed is:

- 5           1. A protocol for conveying data during an e-commerce session with a polymorphic response, comprising:

10           initiating a session with a first message from a buyer application to a broker application and a second message from the broker application to a supplier application;

          conducting the session between the buyer application and the supplier application; and

5           responding during the session with an additional message including:

          a schema identifier for the additional message, resolvable in a context of a system identifier; and

20           a polymorphic response comprising a type and a version, wherein the polymorphic response including additional data elements corresponding to values assigned to the type and version.

- 25           2. The protocol of claim 1, wherein the system identifier is explicit in the additional message.

3. The protocol of claim 1, wherein the system identifier for the additional message is implicit.

- 30           4. The protocol of claim 1, wherein the buyer application comprises a browser.

5. The protocol of claim 1, wherein the buyer application comprises a procurement application.
6. The protocol of claim 1, wherein the buyer application comprises a browser and a procurement application.
7. The protocol of claim 1, wherein the second message forwards at least a portion of the first message.
8. The protocol of claim 1, wherein conducting the session between the buyer application and the supplier application includes direct communications between the respective applications.
9. The protocol of claim 1, wherein conducting the session between the buyer application and the supplier application includes communications between the respective applications through the broker application.
10. The protocol of claim 1, wherein the polymorphic response is represented in an extension of XML.
11. The protocol of claim 1, wherein the polymorphic response is represented in a form compatible with Sox.
12. The protocol of claim 1, wherein the additional message is sent by the supplier application to the broker application.
13. The protocol of claim 12, wherein the additional message is forwarded by the broker application to the buyer application.
14. The protocol of claim 12, further including the broker application translating a supplier's format of the additional data elements to a buyer's format of the additional data elements.

15. The protocol of claim 13, further including the broker application translating a supplier's format of the additional data elements to a buyer's format of the additional data elements.

5 16. The protocol of claim 12, wherein the additional message includes price and destination information and the broker application calculates tax applicable to the price and destination information.

10 17. The protocol of claim 13, wherein the additional message includes price and destination information and the broker application calculates tax applicable to the price and destination information.

18. The protocol of claim 1, wherein the system identifier comprises a universal resource name.

19. The protocol of claim 1, wherein the additional data elements of the polymorphic response are adapted to transmitting a shopping basket identifier from the supplier to the buyer.

20 20. The protocol of claim 12, wherein the additional data elements of the polymorphic response are adapted to transmitting a shopping basket identifier from the supplier to the buyer.

25 21. The protocol of claim 1, wherein the additional data elements of the polymorphic response are adapted to transmitting a shopping basket data set from the supplier to the buyer.

30 22. The protocol of claim 12, wherein the additional data elements of the polymorphic response are adapted to transmitting a shopping basket data set from the supplier to the buyer.

23. The protocol of claim 1, wherein the additional data elements of the polymorphic response are adapted to transmitting product configuration data.

24. The protocol of claim 12, wherein the additional data elements of the polymorphic response are adapted to transmitting product configuration data.

25. The protocol of claim 1, wherein the additional data elements of the polymorphic response are adapted to transmitting tax calculation data.

26. The protocol of claim 12, wherein the additional data elements of the polymorphic response are adapted to transmitting tax calculation data.

27. The protocol of claim 1, wherein the additional data elements of the polymorphic response are adapted to transmitting freight forwarding data.

28. The protocol of claim 12, wherein the additional data elements of the polymorphic response are adapted to transmitting freight forwarding data.

29. A protocol for conveying data during an e-commerce session with a polymorphic response, comprising:

initiating a session with a first message from a supplier application to a broker application and a second message from the broker application to a buyer application;

conducting the session between the buyer application and the supplier application; and

responding during the session with an additional message including:

a schema identifier for the additional message, resolvable in a context of a system identifier; and

a polymorphic response comprising a type and a version, wherein the polymorphic response including additional data elements corresponding to values assigned to the type and version.

- 5           30. The protocol of claim 29, wherein the system identifier is explicit in the additional message.
31. The protocol of claim 29, wherein the system identifier for the additional message is implicit.
- 10           32. The protocol of claim 29, wherein the buyer application comprises a browser.
33. The protocol of claim 29, wherein the buyer application comprises a procurement application.
34. The protocol of claim 29, wherein the buyer application comprises a browser and a procurement application.
35. The protocol of claim 29, wherein the second message forwards at least a portion of the first message.
36. The protocol of claim 29, wherein conducting the session between the buyer application and the supplier application includes direct communications between the respective applications.
- 25           37. The protocol of claim 29, wherein conducting the session between the buyer application and the supplier application includes communications between the respective applications through the broker application.
- 30           38. The protocol of claim 29, wherein the polymorphic response is represented an extension of XML.

39. The protocol of claim 29, wherein the polymorphic response is compatible with Sox.

40. The protocol of claim 29, wherein the additional message is sent by the supplier application to the broker application.

41. The protocol of claim 40, wherein the additional message is forwarded by the broker application to the buyer application.

42. The protocol of claim 40, further including the broker application translating a supplier's format of the additional data elements to a buyer's format of the additional data elements.

43. The protocol of claim 41, further including the broker application translating a supplier's format of the additional data elements to a buyer's format of the additional data elements.

44. The protocol of claim 40, wherein the additional message includes price and destination information and the broker application calculates tax applicable to the price and destination information.

45. The protocol of claim 41, wherein the additional message includes price and destination information and the broker application calculates tax applicable to the price and destination information.

46. The protocol of claim 29, wherein the system identifier comprises a universal resource name.

47. A protocol for conveying data during an e-commerce session with a polymorphic message, comprising:

initiating a session with a first message from a buyer application to a broker application including:

a schema identifier for the first message, resolvable in a context of a system identifier; and

a polymorphic message comprising a type and a version, wherein the polymorphic message including additional data elements corresponding to values assigned to the type and version;

sending a second message from the broker application to a supplier application; and

conducting the session between the buyer application and the supplier application.

48. The protocol of claim 47, wherein the system identifier is explicit in the additional message.

49. The protocol of claim 47, wherein the system identifier for the additional message is implicit.

50. The protocol of claim 47, wherein the buyer application comprises a browser.

51. The protocol of claim 47, wherein the buyer application comprises a procurement application.

52. The protocol of claim 47, wherein the buyer application comprises a browser and a procurement application.

53. The protocol of claim 47, wherein the second message forwards at least a portion of the first message.

54. The protocol of claim 47, wherein conducting the session between the buyer application and the supplier application includes direct communications between

the respective applications.

55. The protocol of claim 47, wherein conducting the session between the buyer application and the supplier application includes communications between the respective applications through the broker application.

56. The protocol of claim 47, wherein the polymorphic response is represented in an extension of XML.

57. The protocol of claim 47, wherein the polymorphic response is represented in a form compatible with Sox.

58. The protocol of claim 47, further including the broker application translating a buyer's format of the additional data elements to a supplier's format of the additional data elements.

59. The protocol of claim 47, wherein the system identifier comprises a universal resource name.

60. The protocol of claim 47, wherein the additional data elements of the polymorphic message are adapted to transmitting status inquiry data.

61. The protocol of claim 53, wherein the additional data elements of the polymorphic message are adapted to transmitting status inquiry data.

62. The protocol of claim 47, wherein the additional data elements of the polymorphic message are adapted to transmitting purchase order data.

63. The protocol of claim 53, wherein the additional data elements of the polymorphic message are adapted to transmitting purchase order data.



64. A protocol for conveying data during an e-commerce session with a polymorphic message, comprising:

initiating a session with a first message from a supplier application to a broker application including:

a schema identifier for the first message, resolvable in a context of a system identifier; and

a polymorphic message comprising a type and a version, wherein the polymorphic message including additional data elements corresponding to values assigned to the type and version;

sending a second message from the broker application to a buyer application; and

conducting the session between the buyer application and the supplier application.

65. The protocol of claim 64, wherein the system identifier is explicit in the additional message.

66. The protocol of claim 64, wherein the system identifier for the additional message is implicit.

67. The protocol of claim 64, wherein the buyer application comprises a browser.

68. The protocol of claim 64, wherein the buyer application comprises a procurement application.

69. The protocol of claim 64, wherein the buyer application comprises a browser and a procurement application.

70. The protocol of claim 64, wherein the second message forwards at least a portion of the first message.
71. The protocol of claim 64, wherein conducting the session between the buyer application and the supplier application includes direct communications between the respective applications.
72. The protocol of claim 64, wherein conducting the session between the buyer application and the supplier application includes communications between the respective applications through the broker application.
73. The protocol of claim 64, wherein the polymorphic response is represented in an extension of XML.
74. The protocol of claim 64, wherein the polymorphic response is represented in a form compatible with Sox.
75. The protocol of claim 64, further including the broker application translating a supplier's format of the additional data elements to a buyer's format of the additional data elements.
76. The protocol of claim 70, further including the broker application translating a supplier's format of the additional data elements to a buyer's format of the additional data elements.
77. The protocol of claim 64, wherein the system identifier comprises a universal resource name.
78. The protocol of claim 64, wherein the additional data elements of the polymorphic message are adapted to transmitting a purchase order response.

79. The protocol of claim 70, wherein the additional data elements of the polymorphic message are adapted to transmitting a purchase order response.

80. The protocol of claim 64, wherein the additional data elements of the polymorphic message are adapted to transmitting an invoice.

81. The protocol of claim 70, wherein the additional data elements of the polymorphic message are adapted to transmitting an invoice.

82. The protocol of claim 64, wherein the additional data elements of the polymorphic message are adapted to transmitting an advance shipping notification.

83. The protocol of claim 70, wherein the additional data elements of the polymorphic message are adapted to transmitting an advance shipping notification.